

A New Species of *Strombina* from the Galápagos Islands

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(Plate 39)

AMONG SEVERAL NEW or otherwise interesting mollusks received from Mrs. Jacqueline DeRoy of Academy Bay, Santa Cruz Island, The Galápagos Islands, are two specimens of an apparently new species of *Strombina*. We take pleasure in describing this species in honor of Mrs. DeRoy.

Strombina (Cotonopsis) deroyae EMERSON & D'ATTILIO,
spec. nov.

Diagnosis: This species may be distinguished from *Strombina (Cotonopsis) esmeraldensis* OLSSON, 1964, a precursor in the Ecuadorian Neogene, by having a much larger shell (attaining nearly twice the length of the fossil), with a less robust outline, a proportionately larger and more strongly recurved siphonal canal, and with finer spiral threads on the base of the body whorl.

Description: The shell is thin though large for the genus, surface smooth, except for first 4 post-nepionic whorls; spire extended; body whorl swollen, ending in a long recurved canal. The holotype is a well-preserved, but dead-collected specimen, lacking soft parts. The shell has 10 whorls, the nepionic whorls having been lost. The individual whorls of the spire are slightly convex; the suture is well-defined but simple; each of the 4 whorls of the spire are sculptured with about 11 axial ribs which extend the length of each whorl to give the suture a slight undulation; the ribs are about equal in size to the interspaces and gradually become obsolete on the fifth whorl. A few widely spaced spiral striae are present on the body whorl above the aperture; the lower half of

the body whorl is sculptured with numerous, closely set, rounded, spiral striae that continue in the same manner to the base of the siphonal canal. The length of the aperture and canal is about one half the height of the shell; the aperture is narrowly elliptical; the inner lip sinuously turns into the canal; the parietal region is poorly defined except below, along the siphonal canal; anteriorly a strong cord arises from within, on the inner lip, and curves around to join the labial edge to form an anal canal; in addition, the labrum is thickened anteriorly within by a large rounded knob-like plica furthering the formation of the anal canal; above this knob there are 2 smaller plicae. The lip edge is thickened into an axial cord above and diminishes below into a thin edge along the siphonal canal; within the labrum there are present below the knob forming the anal canal 12 to 14 lirations extending within the aperture for a short distance; the lirations are weakest anteriorly. The strongly recurved siphonal canal is widely open.

The opercular and radular characters are not known, as the holotype and paratype were both empty shells when dredged.

The color on the dorsum of the shell consists of a medium shade of brown broken up into a pattern arranged in axial, lightning-like streaks and daubs of brown over white in a broad band on the spire; the lighter area is directly below the suture; on the body whorl an additional lighter band is found starting anteriorly near the anal canal and divides the pattern on the body whorl more or less into 2 more lightly and 2 more heavily maculated areas.

Measurements: Holotype, 49 mm in length (early whorls missing), 26.7 mm in width (Plate 39, Figures 1

to 3). Paratype, 46 mm in length (early whorls missing), 25.4 mm in width (Plate 39, Figures 4 to 7).

Type Locality: Southeast of Academy Bay, Santa Cruz Island, dredged in 102 fathoms, April 26, 1967, by the DeRois.

Type Repositories: Holotype, American Museum of Natural History no. 146277; paratype, collection of Mrs. DeRoy.

Remarks: Except for the recently re-discovered Caribbean species, *Strombina pumilio* (REEVE, 1859) (WEISBORD, 1962; WOODRING, 1964), representatives of this New World genus are now confined to the warm waters of the eastern Pacific Ocean. We here add an additional species to the approximately 24 known from the Panamic faunal province (see KEEN, 1958, for a list of the living species). The genus flourished in the tropical western Atlantic and eastern Pacific during early to late Miocene time, ranging from the southeastern United States, the West Indies, to Venezuela, and from Costa Rica to Ecuador. In the Pliocene, its distribution became more limited, with species known only from Florida, Trinidad, Venezuela, Ecuador, and western Panama. With the closure of the trans-American seaways in the late Tertiary, only the above mentioned species is known to have survived in the western Atlantic. WEISBORD (1962, pp. 323-329) lists about 50 nominal species of *Strombina* reported as fossils from deposits ranging in age from early Miocene to late Pliocene. Of this number, only 4 of the records refer to living species.

The new species appears to represent a living representative of a small group of the genus that lacks a strombinoid hump on the body whorl. This group was afforded subgeneric recognition by OLSSON (1942, p. 227), who proposed the name *Cotonopsis*, with *Strombina (C.) panacostarcensis* OLSSON (1942, pp. 227, 228; pl. 23, fig. 5) the type of the subgenus. The type species is a fossil from the Pliocene Charco Azul formation of the Panamanian Burica Peninsula. According to OLSSON (1942, p. 227), a second, unnamed species of this group also occurs in these deposits. A third species, *S. (C.) esmeraldensis* OLSSON (1964, p. 148; pl. 28, figs. 3, 3a), which more closely resembles the present species, occurs in the Mio-Pliocene Esmeraldas formation at Quebrada Camarones, Ecuador. The Ecuadorian fossil is much

smaller than the new species, being only 25.9 mm in length, and it possesses a stouter appearance.

Of the known living species of *Strombina (sensu lato)* that lack a strombinoid hump, the shell of the new Galapagan species is reminiscent of *Strombina (?Cotonopsis) edentula* DALL, 1908, but the resemblance may be solely superficial. DALL's holotype, which has not been illustrated, has a shorter (34 mm in length) and stouter shell with a proportionately shorter and less recurved siphonal canal (*teste* A. A. OLSSON, *in litteris*). DALL's type has each of the first 4 post-nepionic whorls ornamented with 14 to 15 axial ribs, whereas the new species has about 11 ribs on each of these whorls. *Strombina turrita* (SOWERBY, 1832), which is a living ally of *S. edentula*, also lacks denticulations or lirations of any sort on the inside of the outer lip. SOWERBY's taxon has a much smaller, more slender shell than that of the new species; and unlike the new species and *S. edentula*, it lacks axial ribs on the early whorls.

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Explanation of Plate 39

Strombina (Cotonopsis) deroyae EMERSON & D'ATILIO, spec. nov.

Figures 1 to 3: Holotype, A. M. N. H. no. 146277;

Figures 1-2: $\times 1.5$; Figure 3: early whorls greatly enlarged to show axial ribs

Figures 4 to 7: Paratype, DeRoy Collection; $\times 1.5$



Figure 1

Figure 2

Figure 3



Figure 4

Figure 5

Figure 6

Figure 7